

HISTORY AND INFLUENCE
OF THE
LICHFIELD WATERS.

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IN ONE

BOOK

YES? NO?



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A
POPULAR VIEW
OF
THE MARSH-WATERS
OF
LICHFIELD.

"The marsh disagreeable with stagnant water."

VIRGIL.

"And he gave it for his opinion, that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground, where only one grew before, would deserve better of mankind, and do more essential service to his country, than THE WHOLE RACE OF POLITICIANS PUT TOGETHER."

SWIFT.



LICHFIELD: LOMAX, BIRD-STREET.
LONDON: MASTERS, ALDERSGATE-STREET.

M.DCCC.XLI.

TO
THE RISING GENERATION
AND
FUTURE RATE-PAYERS OF LICHFIELD
THE
FOLLOWING OBSERVATIONS ARE ADDRESSED
BY
THEIR ANONYMOUS,
AND THEREFORE,
UNKNOWN FRIEND
THE AUTHOR.

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INTRODUCTION.

TO THE RISING GENERATION AND FUTURE RATE-PAYERS OF LICHFIELD, AND TO THE CHILDREN OF OCCUPIERS OF LAND NEAR LICHFIELD, GREETING. WHEREAS the manner of your experienced friend Peter Parley is—not to attack “made up” and therefore, in most cases, impregnable minds, but—to direct “the mind of a young child,” I thus humbly imitate him, while endeavouring morally to intercept the springs of an extensive prejudice, and agriculturally to explain the very powerful effects of intercepting those of a marsh, or pool. Nor is even an apology offered for such attempts ; since the spirit of improvement, which reigns throughout England at large, but an utter apathy and want of public exertion in Lichfield would justify much rasher experiments than mine.

To those your friends of the present generation,

“Still as their grandsires cut in alabaster,”

when NATURAL REVOLUTION is the topic, who seeing this address may think it to have been written for the purpose of aiming at limited notoriety rather than of urging to *extensive*, PERMANENT, and PROGRESSIVE improvement, you may observe, without intending the slightest offence, that we of the nursery neither court their applause, nor fear their censure, in a matter, wherein they must so soon reveal their submission to or contempt of laws, which never have been, and never can be, violated with impunity. But you, who are inclined to hear, must understand, that the object of the following pages is to direct attention to the variously injurious consequences of any further struggle to preserve the Lichfield pools. A fair and just decision of which matter resting on general as well as local facts, you may, in the outset, by way of general or popular testimony, refer to any of the now fortunately numerous works on Geology ; since almost the very

simplest of them will afford evidence, that *solid matter is, and ever must be, copiously deposited in and from all expanded waters ; marsh water being unusually loaded. So that, by means of such deposits, aqueous causes produce vast and unceasing change : it being “astonishing how rapidly lakes are filled up by the earth, &c., which streams carry into them,” and by the growth and decay of vegetable matter, which “silently and constantly” take place, all over the world.*

If it be a fact that “ You cannot expel Nature, except by violence,” THAT violence, in your case, must entail very great expense ; to say nothing of more exalted views. And if the almost unavoidable effects of yet but infant Agriculture on supplies and expanses of water be here subsequently stated in language that may be understood, it must inevitably result, that it is a serious public question for you in the Nursery:—

CAN WE PRESERVE OUR POOLS ?



CHAPTER I.

OF NATURAL CHANGES IN LICHFIELD.

1. AS TO THE CHANGES WHICH HAVE TAKEN PLACE IN THE NATURAL FEATURES OF LICHFIELD, it appears that, even so late as the commencement of the fourteenth century, there remained here three lakes, or pools, which covered an expanse of more than 45 acres. Whereas, in the present day, there are only two pools; and these of an expanse of less than 10 acres!

When ancient lines and church-defending lakes,

“ Smooth and unruffled as a summer’s sea,
When not a breath of wind blows o’er its surface,”

reached south and west of Lichfield cathedral, an average width of some hundred yards for an almost uninterrupted distance of nearly a mile, the inhabitants of the town had reason to admire them; inasmuch as, while land was of little value, the

water, for the most part clean, reflected, without wave, an unobstructed building of unusual beauty. Whereas, in the present day, land is—and must become yet much more—amazingly improved; while the lakes of Lichfield are reduced to muddy, offensive, malarious, and comparatively paltry reservoirs !

2. *The property under consideration remained exclusively church property, until the middle of the sixteenth century ; but it is now held by the corporation of Lichfield, under grant from a Bishop of the diocese.*

At the date of the grant, it consisted of two mills, with certain adjoining pools; the pools being in expanse some six or eight and thirty acres, of which Stow pool measured 22, and the Minster pool more than $4\frac{1}{4}$.

The present corporate property, in Stow valley, after recorded and very recent losses, is almost 20 acres. The original extent of the Minster pool is thus explained :—

	A.	R.	P.
Present pool and Pool walk	2	2	0
Corporate properties N.W. and S.W. of the head of the pool		2	0
Loss for the “serpentine manner” of the north bank....		3	20
Loss from the “encroachments” of “several trespassers,” on the south side		1	29
	<hr/>		
	Ac. 4	1	9
	<hr/>		

3. *Regarding the natural laws, which have directly and indirectly caused extensive changes in the features of this ancient district*, I wish to impress on your minds four facts :—

1st. That the supply of water is already considerably lessened :

2ndly. That it must henceforward become gradually more and more so :

3rdly. That the Minster pool is, at present, so situated, that it must henceforward diminish in more rapid proportion than it did formerly : and

4thly. That if it were this year finally drained, but Stow pool preserved for a time, then Stow pool would become more rapidly filled up with solid matter than it is at present.

CHAPTER II.

OF THE SUPPLY OF WATER, IN FORMER TIMES.

1. THE SUPPLY OF RAIN WATER IS ALREADY CONSIDERABLY LESSEMED, as we learn, in part, from The Pictorial History of England, where it records what were

The seasons of England, seven and eight centuries ago.

“The year 1086,” the Saxon chronicler remarks, “was *a very heavy season*, and a swinkful and sorrowful year in England in murrain of cattle. And corn and fruit were at a stand, and so much *untowardness in the weather* as a man may not easily think.” The following year was “a very heavy and pestilential year in this land;” and the cause is attributed to “*the badness of the weather.*” Then came “so great a famine over all England, that many men died miserable deaths through hunger.” * * * * Again, 1098 was “a very troublesome year, through manifold impositions ;

and from *the abundant rains* that ceased not all the year, nearly till all the tilth in the marsh-lands perished.” * * * * * In 1116 there were “*immoderate rains,*” * * And the next year was “a very blighted year in corn, through *the rains, that scarcely ceased for nearly all the year.*”

This Extract, from the History, omits mention of no less than eight bad seasons ; and yet it embraces altogether a period of only thirty years !

Another work for popular reference is Tegg’s Dictionary of Chronology ; from which you may learn, that at a still later period,—during the fourteenth century,—heavy rains lasted for months together, destroying the crops, or causing the harvest not to begin until Michaelmas !

Such then were the seasons of England, some few centuries ago. Now let us advance, and learn how, as the clearing and cultivation of the country progressed, the quantity of rain in it lessened.

2. *Of the climate of England as influenced by cultivation.*

“Without cultivation,” observes the author of The Physical Geography, “few climates would be healthy or agreeable. In countries to which the labours of civilized man have never been extended,

the rivers spreading themselves over the low grounds, form pestilential marshes. * * * *

The air from these causes is constantly filled with noxious exhalations. But the efforts of the human race, conducted with skill and perseverance, produce a surprising change. Marshes are drained." The country is cleared of wood. But so remarkably do woods influence the fall of rain, that "the destruction of forests may be carried to a pernicious extent, especially in hot climates, by lessening the quantity of moisture," &c.

Further detail, then, of change of climate in England is needless ; since, in short, all authorities confess that there is less rain here now, than there was in former days. And, consequently, the pools of Lichfield are not so abundantly supplied with rain water as they were formerly.

3. *The supply of spring water is also diminished*, in consequence of cultivation ; as may be understood from our subsequent references to agriculture.

CHAPTER III.

OF THE FUTURE SUPPLY OF WATER.

THE SUPPLY OF WATER FOR THE LICHFIELD POOLS MUST BECOME YET MORE AND MORE DIMINISHED.

1. It must become so, because in proportion as interested parties appreciate modern—and, so far as Lichfield is concerned, yet almost unheard of—improvements in agriculture, in such proportion will they divert surface water from their land, intercept springs, adopt the Deanston drain system, discharge stagnant ponds and ditches, and by such means stop the supplies of the Lichfield pools.

Take only three examples to learn what inducements a perfect system of draining holds out. The examples are Fisherwick and Freeford, near home, and Netherby, in Cumberland.

2. Thus *Fisherwick* was not long since, by means of Elkington's improvements,⁽¹⁾ in the interception of springs and discharge of stagnant waters,

converted from a dreary morass into (what, in an Agricultural Survey, is called) “one of the most delightful spots in nature.” And *Freeford* was, by similar means, amazingly improved. In this latter locality, it appears that, only a few years ago, tracts of land were so marshy, that they were totally unable to bear a horse, and even a man could scarcely walk over them in safety! But Mr. Elkington laid them dry by intercepting the springs; and they are now a sound, rich, and beautiful pasture!

3. *The example of Netherby* is described by Sir James Graham, in Part I. of The Journal of the English Agricultural Society. He writes thus:—

“A recent inquiry, addressed to me, by Lord Spencer, relative to the “Deanston frequent Drain System,” induces me to believe that I may render some service to agriculture, if I am so fortunate as to direct the attention of your readers to this important subject at this particular time.

*	*	*	*
*	*	*	*
*	*	*	*

The outlay of capital, which is common to both (the old and the new) plans, consists in effectual underdraining; *and no subsequent management, NO FRESH APPLICATION OF CAPITAL, can be of any*

avail, unless, on retentive soils or a substratum of clay, the water be quickly carried off.

This I take to be an axiom undisputed in agriculture: but after effectual draining * * the mode of treating the subsoil * * does not involve expenditure; and greater produce without additional outlay is the grand object of the practical farmer.

* * * *

I tried an experiment, in the year 1838, on a field of about eight acres of the poorest and wettest land. The surface soil is about five inches of black earth of a peaty quality: the subsoil is a weeping retentive clay. * * This field was in pasture of the coarsest description."

* * * *

Sir James drained it by Deanstonizing; and adds:

"In the mean time I have relet the farm. The outlay in draining and extra ploughing cost me £6. 18s. 4d. an acre," (as detailed in note,) "but the field in question, which was valued at 4s. 6d. an acre to the out-going tenant, is rented by the in-coming tenant at 20s., on a lease of fourteen years."

Further allusion to the effects of the new system of drainage elsewhere will be found in the Notes, at the end of this pamphlet.

CHAPTER IV.

OF INTERCEPTING SPRINGS.

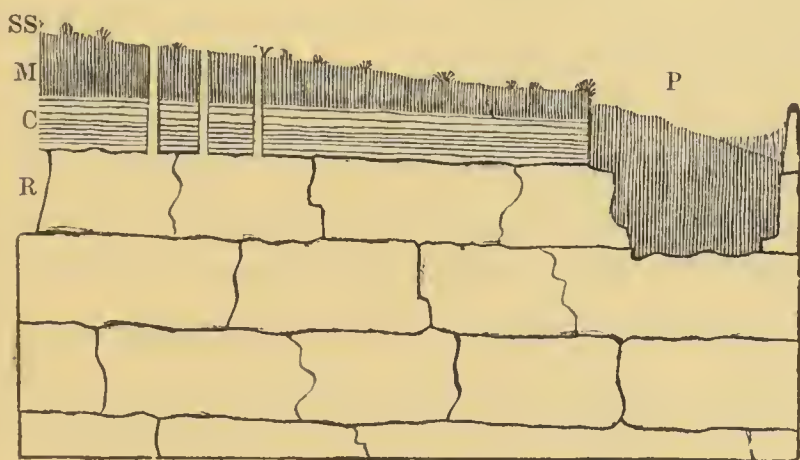
1. This address being designed for children, I must endeavour to explain, by fact and fable, how turning springs and streams out of their ancient course not only improves the texture of the sod ; but, at the same time also, either extensively robs the pool below it of water, or weakens it.

Thus, since the opening of a canal near Lichfield, a pond has vanished from The Marsh ; and the miller at Sandford, will tell you how much the moving power of his mill has been diminished by the interception of springs.

2. This, however, you may call too confined a view ; and so—to understand, that we are not illogically building universal conclusions on the solitary *premises* of a Lichfield Marsh, without foreign support and foundation,—you must know, that a celebrated bog, nearly 300 miles from here, was saturated, as other bogs are, with spring water ; and it presented a circumscribed pond, not dissimilar to that so lately seen in Lichfield Marsh. Having no efficient outlet for the accumulation from

the springs, it swelled to such extent, that a church and a castle near it, and some two miles distant, were in time respectively invisible each from the other, at a height of twenty feet, before a line, called "The Grand Canal," was cut through part of the bog. The new line, however, drew off the water of the springs. The pond vanished. And the land becoming sound, fell to such extent, that the buildings were, in a moderate space of time, visible each from the floor of the other.

3. *Water, in fact, will make its escape by the nearest outlet*, whether it be sideways or downwards. So that any vent given to it between its source and a pool must injure the supply of the pool; as the following diagram may explain:—



S.S. are springs, M. is a marsh, C. a bed of clay, R. a sandstone rock presenting its "crevices," P. is a pool. The three perpendicular openings through the marsh and the clay are auger holes.

Other names may be substituted ; as instead of *clay*, any kind of retentive subsoil ; instead of *sandstone*, gravel ; and instead of *auger holes*, wells or shafts.

When springs are thus circumstanced, their water will naturally descend to the pool. But this would not be the case if the rock had not a tenacious covering or pargeting. On the contrary the water would be partly strained through the pores of the sand-stone, and partly carried off by means of the crevices in it, downways and sideways.

A person, then, in order to drain land situated between the springs and the pool, bores auger holes. The water falls into these new openings ; and so—passing through the hitherto retentive subsoil—escapes by the crevices, pores, or gravel ; and thus avoids the pool.

4. *The facility of finding water near Lichfield, but the caution required for retaining it*, in some situations, or of bringing it to the town from others will, on consideration, help to explain how much may be effected by intercepting springs.

Thus, in a certain site, where you may soon dig to a fair supply of water, on a thin bed of clay, you make a well ; but, as the pay-master thinks, not well enough. Aiming at a better supply, therefore, when your back is turned, he deepens the shaft, and, to his great surprise, finds the

supply of water very much lessened ! And why is this ? It is because he has gone through the clay ; and so has the water !

Again, at Aldershaw,—as your intelligent fellow-citizen, Mr. Perks, will tell you—a burst issues from both the springs together near the Conduit heads, at the rate of upwards of 34,000 gallons in twenty-four hours. Yet abundant as the supply of water is here, it cannot be brought to Lichfield without much care and expense ; for if not confined in pipes over certain porous lands on the way, it would there escape, and so fail to supply the town.

5. *The preceding diagram may also serve to illustrate how other systems of drainage cut off the supplies of a pool.* Thus the Deanston system will effect such a purpose, in consequence of breaking up, without mixing, the tenacious subsoil (c) which hitherto prevented the water percolating through it. While the Lincolnshire method opens a vent by bringing the clay (c) to the surface, and mixing it with the peat (m.) And, in short, any breaking up of, or through, a retentive subsoil comes, more or less, to the same thing : it cracks the glazing, or means of retaining the water on the surface, and so the water escapes downwards and avoids the pool.

6. *The story about intercepting supplies is*

AN EXTRACT

FROM

The Life and Adventures

OF

SAMSON COUNCIL.

“Mr. Council kept (without conducting) a school, at Limna. His Hall was large, his play-ground ample ; but he let them get sadly “in decay and out of order.” Now his scholars having to come a good way in two directions, from Dhudeen Marsh and Vadosus, over wet dirty land, could not help bringing a great deal of dirt to the Hall. And the master—“a good arithmetician,” but one who went the cheapest way to work in everything—let this dirt accumulate, for agricultural purposes, at $17\frac{1}{2}$ *per centum, per annum*, compound interest ; because, like many other persons, he fancied that

“Where there’s muck
There’s luck.”

But he eventually, and the scholars, at first, found it otherwise. For the young ones, confined in filth and mists, lost their color ; and became so spiritless and—agriculturally speaking—inelas-

tic in fibre, that farmer Culture, at last, took compassion on them.

Mr. Culture, “a plain, blunt man,” instead of sending his sons to the academy of Limna, had engaged a tutor for them; because old Council had, on divers and sundry occasions, caused his meadows to be flooded, in consequence of the water which he had pounded up to reflect the school house.

One day, then, seeing little boys with satchels lagging at his gate, he said:—“I perceive you are some of Council’s boys; and—looking at your dirty shoes—it strikes me, that the injury done to my lower meadow, this summer, is from your having crossed it very often, in order to avoid yon filthy marsh. But come! although the damage is extensive, you could not help it. I’ll save my land from future mischief of the kind, however; and, bringing health into your cheeks, pay off old Council, at the same time. You shall have the run of my school-room and play-ground; and there are many ways of escape, if ever Mr. £. s. *d.* tries to lay hold of you.”

Scarcely had the farmer opened a passage for them, when the transported boys

“Rushed like a torrent down upon the vale,
Sweeping our (Council’s) flocks and herds.”

And other farmers imitating their friend Culture's example, the Academy of Limna soon became a dunghill;

For rain fell, and weeds grew,
And wood rotted, and winds blew,
And rafters cracked, and walls gave way,
Till passengers nodding the head would say :—
“ What strange results and troubles arise,
From intelligent farmers stopping supplies.”

MORAL.

“ Thus ends my tale ; and now I'll try,
Like Prior, something to apply.
This may teach rulers”(2)

of Lichfield, in 1857, that in proportion as interested parties, in the vallies north and west of the town, intercept and divert springs for the purpose of improving their lands, in such proportion must they lessen the supply of water for the Lichfield pools, and weaken them.

To do this, however, on a modification of Elkington's principle and the Deanston system, extensively and efficiently, would cost many hundred pounds. An expenditure, at once, rendered unnecessary by finally draining a single pool !

CHAPTER V.

OF THE SITUATION OF A POOL.

1. THE MINSTER POOL IS, AT PRESENT, SO SITUATED, THAT IT MUST HENCEFORWARD DIMINISH IN MORE RAPID PROPORTION THAN IT DID FORMERLY ; because it is now a direct recipient of the filling-up material. To explain which, I must adopt a story that a shipmate of Captain Gulliver's left unpublished. It is this :—

A Tale of Laputa.

2. “In a city of philosophers, in the Island of Laputa, lived a colony of marshmen, under guidance of a Section of the Academy of Lagado. The members of which Section planned three large pools for the centre of the town in which the colony resided.

One Langhorne—a Laputian historian, and, therefore, never at fault over numbers—records, that the basins of these pools were manufactured at Lagado out of the *pelves* of 999 dead bodies. Whence the town was named Lielab ; a name

which, by interpretation, signifies Dead-land, or, as Shakspeare translates it, "Drowned field." The marshmen "bearing for their Device, rather than Arms, an escutcheon of *Landscape*, with several (that is, three lands,) in divers manners massacred :—" and in the following shape and position :—



CONCORDIA RES PARVÆ CRESCUNT.

This, however, must rather be considered the Device of the reformed than of the ancient city, on account of the motto ; which, by the way, the Laputians willingly adopted from us, as emblematic of concord in the pools. Being essential features in the district, they were all unanimously kept in temporary order, every summer and autumn, by a kind of cleansing "with a hook :—" and yet further underwent a grand lustration, at more distant intervals. The details, however, of these "important measures," or "grand demonstrations," caused violent

* * * * *

From personal observation, I am only enabled to add, that, during our stay in the Island, this scheme for “carrying on the mill-grists and services answerable” did not succeed. On the contrary, we could perceive “the heads” of the apparatus get very “filthy ;” “the springs” and supplies for the tanks were, somehow or other, cut off; the “brooks and streams” grew weaker and weaker ; “the intrails” got more obstructed and disordered ; “the gearing” more tattered. “Bank-slips” and “injury to the flood-gates” in frosty weather, and “incidents” and “work done” and “a great deal of repairs,” and “extraordinary repairs,” in all seasons, were found to be more common as things got older. And, in short, the whole frame of the place seemed to be breaking up.

But on such things we made no comment. Because although “the prosperity of the City of Liclub—” a favorite theme over the cup—was, for the present sacrificed, the academicians saw from *philosophical premises*, that the scheme must go “forred :” and *ergo*, in due time, make Liclub “increase and *flourish*.”

I am in justice bound to add, that our Captain, who had been, as you may know, brought up to the medical line of business, prophesied fever in the city. But we were not inclined to believe his theory ; because it was not verified there and then ;

he himself, moreover, talking about so many unexplained accidents, and mysterious agencies, sometimes in operation and sometimes "latent." And as for the doctors there, if they agreed with him, they were too cunning to say so.

Subsequent advices, however, brought intelligence, that fever broke out, soon after our departure. On which occasion, a priest was sent down from Lagado, the Council being of opinion, that this scourge was clearly an especial evidence of the just indignation of the god, in consequence of some heinous neglect committed below. But what the neglect was, neither the priest nor the citizens could divine.

At length, one of the Dhuromes declared that, however ornamental the reservoirs, he invariably felt sick and got a head-ache, when he remained near them, for any time. This was just at the beginning of the sickness; and when the fever got more malignant, as the doctors call it, another Dhurome was taken sick and died. Whereupon, public alarm caused a plain statement of facts to be submitted to a Board of Health, at a distance; which Board strongly recommended that the stagnant water should be instantly discharged.

The pools were accordingly drained, those nearest the marsh, or which received the first supply of water from it, being found very filthy,

but the lowest pool comparatively clean. The highest pools, by the way, were called B. and V., the lowest was named M. The comparative cleanliness of M. being accounted for on principles of *licolabism*, caused this reservoir to be preserved with increased care, and at increased expense, for some years longer ; when another fever breaking out, it shared the fate of its former companions ; and was then found to contain nearly as much filth as both the others had presented on the former occasion.

END OF THE TALE OF LAPUTA.

3. The meaning of the letters B. V. and M. in the Laputian tongue, is not stated. But it so happens, that, in our mother tongue, by reading U. instead of V., they may be taken to represent the ^{B.U.}_{M.} pools of Lichfield:—the Bishop's pool, the Upper pool, and the Minster pool.

And thus you perceive how the highest, as direct recipients of the filling up material suspended in the water, were the first to become obliterated ; and how, when these were annihilated and the defence of their position lost, the Minster pool became gradually more and more filthy, under increased care, and at increased expense ; and such is a universal law.

4. *The exact data regarding extensive cleansings of the Minster pool*

are, that—omitting constant notices of “removing segs” and “removing more segs”—from 1646 to 1796, only *four* such cleansings took place in this lapse of a century and half; during eighty-four years of which time, it was screened by a superior pool. Whereas, on the contrary, from 1796 to 1840,—that is, during a lapse of only forty-four years, when it had not the screen of a superior pool,—*three* such cleansings have taken place!

By this phrase “extensive cleansings,” I mean scourings of the bed of the pool, the sluices being raised and “the pool let dry,”—without reference to the number of cubic yards of “filth” removed.

But of the four first scourings, only one—that in 1773—can bear any comparison with even that in 1816; the labor and expense of the whole four together being *mere* flea-bites to the “grand cleansing” in 1802 and 1803! And now, again, is the site “filthy,” stinking, disgraceful, and dangerous! So that to endeavour to preserve your Minster pool, is to endeavour to preserve it, at increased, increasing, and constant expense and constant risk. And they, who assert otherwise, know as little either of its history, or of that of similar features of a country elsewhere, as they know

about a comet ; however like a comet is to the cleansing of a pool in being a something *heavenly* “ appearing suddenly and again disappearing,” as Dr. Johnson defines it.

THE FOURTH PROPOSITION stated in the Introduction,—that *if the Minster pool were, this year, finally drained, but Stow pool preserved for a time, then Stow pool would become more rapidly filled up with solid matter than it is at present,—* is explained by a consideration of the last proposition. Because this site, losing its ancient defence, would then become a direct recipient of the loaded streams.

CHAPTER VI.

OF GARDEN LAND IN LICHFIELD.

1. Before laying down plans of revolution, and new *plots* in the manor of Lichfield, I must tell you, that the Lords of this Manor, some hundred and fifty years ago, were more puzzled over the angles of their *arch* garden plots, than ever was a school-boy over those of the *Pons*;—one of our facts, which you may readily believe, when you see their heirs yet on the very same *scent*. For notwithstanding a hundred and fifty notices to warn them off swamps east, and set them on the right road west, of the bridge, they have not yet got over it; but, like the heroes enchanted by Ariel, although

“ So full of valour, that they smote the air
For breathing in their faces,”

yet some such merry Will-o’the-Wisp as Ariel has, after all their plodding,

“ At last left ’em
I’ th’ filthy mantled pool”

beside it: where applauding themselves in the

rehearsal of LOVE'S LABOUR LOST, revived with new machinery, but the old scenery and decorations, they calculate upon several encores, and never dream of any one marring the plot by "filling up the pools."

2. But come! let us get up a little Play of our own in the nursery, and call it LOVE'S LABOUR GAINED. The sluice-curtain rises, and the trap-doors are opened, and we empty our ample stage—the pool-basins—of water, just as you may empty a wash-hand basin by throwing the slop out of it. This, by the way, is what people here call the expense of "filling up" the pools.

Certain of the patronage of some of the most populous manufacturing districts in England, our PLOT is thus arranged.

*	*	*	*	*
*	*	*	*	*

The scenery being quite new must, of course, have time for preparation; but THE CLOWN will soon set it going. Here he will divert a brook to carry off the filth of sewers; here combine streams with verdure, fruit, and evergreens. For, having abundance of clay and sand at command, he mixes some with peat; he tints, and shades the rich deposit in the pool-basins; and hereby obtains a considerable portion of some of the choicest garden-land in England, in a natural amphitheatre.

3. *As to the value of land thus composed*, several authorities bear testimony. Thus, in his practical and approved work on Rational Husbandry, Thaër gives A TABLE of SOILS, the natural fertility of each soil being ascertained by its average produce with common tillage and manuring. In this Table, the best of sixteen soils noticed is richest in alluvial deposit and vegetable mould ; the humus in it being in proportion to that in a certain cultivated soil named by him as 5 to 1 !

Again, in THE JOURNAL OF THE ENGLISH AGRICULTURAL SOCIETY, the author of the opening article remarks, that, in the peat district of Lincolnshire, “ the soil consists of light vegetable matter, half decayed fibres of plants, clothed in its natural state with rushes, or heath. * *

At a depth varying from one to many feet, lies a stiff blue clay of the consistence of soap. * *

A heavy dressing of it is laid on the ground ; and after three such doses have been given, *it is not dissimilar to the garden-mould, which is usually met with round London ; being, in fact, the soil of a most valuable description of farm, which has been manufactured from two sterile raw materials, pure peat and mere clay.*”

Observe, this speaks only of a heath peat, “ a light vegetable matter,” a matter so light, in fact, that it is compared in the Journal to Rappee

snuff, which you may blow off your hand. What, then, may not mellow eluvial peat⁽³⁾ be converted to!

Since the foregoing part of this chapter went to press, I have heard it objected, that the Town Marsh, west of the bridge, cannot be reclaimed without an expense, that would more than exceed the purchase of so much sound land; because the quantity of sandstone, which was formerly thrown in here, for the purpose of filling up part of an old pool, is very near the surface; and the place is, in great part, so barren as naturally to produce nothing better than moss and rushes.

But these apparent objections not only shew the absolute necessity of a perfect system of drainage, but also prove an artificial advantage, before not calculated on. For by breaking up and pulverising this soft, friable sandstone, at absolutely trifling expense,—the wages of a few boys,—a quantity of sand, which is one of the best materials to mix with the peat, is hereby gained on the very spot!

In short, every new argument raised against draining the pools both tends, more and more, to prove their injurious effects, and, more and more, to shew how little the inhabitants of the town know about matters of—to them—such vital importance. Thus, again, some people would gladly see the place cultivated; but they quite despair of raising

funds for “filling up” the pools, as they call it! Let us, therefore say something

4. *Of “filling up” the pools.*

Just suppose, for illustration’s sake, that in some unventilated, filthy, stinking, and unwholesome yard,—of course, in any town but Lichfield,—a Tinsel Jury* sworn to present and amerce nuisances, especially in affairs of water, wants to get rid of a large old tank of offensive and poisonous hog-wash. The tank is fixed : it cannot well be moved : but standing directly over a sewer, or brook, it has two large spigots and faucets near the bottom.

Now to get rid of this wash, whether think you, would any one “fill up” the tank with sandstone and rubbish, or open the vents near the bottom? Pardon a question, that could not have originated in the nursery. It is asked, because your elders apparently forgetting the present shallowness of their pools, and the existence of sluices and mill-dams, ask questions even less in point ; since if they only open two sluices, or make two “breaches in the battlements,” there will be no occasion to fill up the pools ; Nature having already so far accomplished the task.

* *Tinsel*, query ; as Dr. Johnson defines this word to mean “anything showy and of little value?” P. D.

5. For the purpose of shewing what may be done, under modification of culture, at Stow and west of Lichfield, I have compiled from Mc Intosh's practical work on Horticulture, lately published, the following

TABLE OF SOILS

FOR

THE ORCHARD AND FRUIT GARDEN.

Dry Soil.

THE APPLE. Of all the different descriptions of soils to be met with in these kingdoms, that of a soft hazle loam, containing a small portion of sand, seems to be most congenial to the apple ; provided it be on a dry subsoil. The mellow deposit of the Lichfield pools is on dry sandstone.

APRICOT :—Moderately rich soil, upon a perfectly dry bottom. Peat on sandstone.

CHERRY :—Sandy loamy soil, upon a dry subsoil, and as little subject to dampness as possible. The Kentish cherry orchards are usually on fine deep loam.

FIG :—Strong loam on a dry bottom.

MEDLAR :—Loamy soil not wet at bottom.

PEAR :—Deep alluvial soil, where the bottom is

dry. In damp strong clay soils, the pear becomes diseased.

PEACH:—Loam, sand, and vegetable mould. In the more adhesive soil, if properly drained, trees will continue long productive. But they must be on a dry bottom.

PINE-APPLE. Experience has taught Mr. Mc. Intosh, as well as others, that this fruit prefers a lighter and more porous soil than is generally used for it. Bones of different size, which also act as manure, are employed for drainage; for no plant suffers more from excess of stagnant damp at the roots than the pine, while, at the same time, it requires, particularly while growing rapidly and while the fruit is swelling, a very liberal supply of water.

PLUM:—Mellow soil, on a dry subsoil.

POMEGRANATE:—Soil depending on site. But, in all cases, on a dry subsoil.

VINE. The soil cannot be too dry.

Moist or humid soil.

MULBERRY:—A deep, moist, and rich soil.

RASPBERRY:—A deep, rich, humid soil. The finest crops of raspberries, which Mr. Mc. Intosh ever saw, were in the nursery-garden of Mr. Shilling, of Northambro, in Hampshire, where

they were planted in a damp corner, under the level of the Basinstoke canal, and in a peaty soil. In the deep alluvial soils about Isleworth, Brentford and Hammersmith, this fruit obtains a perfection seldom seen elsewhere; and from these places is derived the principal supply of the London market.

Intermediate soil.

CURRENT :—Various. The Black-currant :—damp loam, in a shaded situation.

GOOSEBERRY :—A fine fresh loam neither too heavy nor too light; and if resting on a subsoil of clay, so much the better.

MELON :—Any unexhausted loam rich in vegetable rudiments, with a mixture of sand.



Thus in seventeen instances, only three—the mulberry, raspberry, and black currant—strictly require a moist soil, or a shaded situation; both which soil and situation you may readily command: while the rich, dry soil you may as readily command by efficient drainage.

6. *The employment of a population, also, in healthful and skilful pursuits is no small benefit.*

To Swift's idea on which subject we may add, that whoever duly cultivates the once barren marsh, not only causes full means of sustenance to grow where little grew before ; but in the employment of hands, where none were employed before, tends more to improve and benefit mankind than "the whole race of politicians put together."

Strangers of discernment—persons, who, looking at both sides of the bridge, can assign reason for what they say,—have invariably the same opinion of the physical and moral blots, the eluvies and idleness, of Lichfield, which De Foe and Boswell expressed some years ago. Wipe out these blots, then, by converting causes of *reflection* into causes of compliment, marshes into gardens, idleness into industry, evils into blessings. For you are situated in a district peculiarly favorable to such natural change.

"In the neighbourhood of trading towns," observes Paley, "and in those districts which carry on a communication with the markets of trading towns, the husbandmen are busy and skilful, the peasantry laborious ; the land is managed to the best advantage, and double the quantity of corn or herbage (articles which are ultimately converted into human provision) raised from it, of what the same soil yields in remoter and more neglected parts of the country. Wherever a thriving manu-

factory finds means to establish itself, a new vegetation springs up around it. I believe it is true that agriculture never arrives at any considerable, much less its highest, degree of perfection when it is not connected with trade ; that is when the demand for the produce is not increased by the consumption of trading cities.”

Yet Lichfield, eminent in the advantages, to which Paley alludes, not only overlooks natural gifts, but pays both in health and wealth to support an opposition to natural law !

CHAPTER VII.

OF THE INFLUENCE OF THE LICHFIELD POOLS.

1. How much have the neighbourhood and town sacrificed to maintain these waters! What inactivity has characterised their King Logs; what taxes the more *flourishing* reign of the Invincible Segs! Acres after acres are injured by them. The corporate—that is, public—property is injured by them: Lord Lichfield's property is injured by them: the Hospital and Friary properties are injured by them: other landed properties to some extent are injured by them. The cellars of dwelling houses are injured by them. If it be true, that “fen-sucked fogs”⁽⁴⁾ can taint the air, the air is injured by them. If

“ *The infections, that the sun sucks up
From bogs, fens, flats on [mortal] fall, and make him,
By inch-meal, a disease,*”

bodily vigor is injured by them. If fogs be, what confessedly the deepest observer of nature has called them, “contagious fogs;” and the laws of

contagion being “the same, yesterday, to-day, and for ever,” if those causes of fogs, large moist beds of decomposing vegetable matter have ever, in any place, on any part of the face of this earth, produced contagious, or infectious, disease,—no matter what its name,—public health may be as seriously injured by them, when least expected, as may be the undefended magazine by the slumbering match.

Again, if almost stagnant waters in a town be so disgraceful as De Foe thought the Lichfield pools to be, more than a hundred years ago, when, putting them all into one account, he described them as “a kind of slow, sluggish lough, or pool, which runs, or rather glides heavily through it,” the town is disgraced by them. If the depressing effects of expanses of sluggish water in a confined valley, from known and explicable causes, drive some persons away from Lichfield, and prevent others settling here, the trade and “prosperity of the City of Lichfield” are injured by them. And lastly, if the present generation continue to seek beauty in the features of a marsh, and welfare in expanded dung-ports, the rising generation and future rate-payers of Lichfield will be injured by them.

2. *As regards injury to land*, for instance, the municipal hotch-pot west of the Minster pool con-

tains some acres. But it, certain stables, and a malt-house, in the immediate neighbourhood of a unique cathedral, were leased for lives, in the year 1800, at a reserved rent so paltry as £14 a year, the tenants having bargained for “draining” the swamp there.

Since then, some hundreds of pounds have been expended on it by various parties, whose schemes of extracting sunbeams out of a marsh rival those of the philosopher, who began to build at the chimneys. They began at the wrong end : and what is the place to this day ? It is a tremulous swamp. The *mere* want of sound bottom, and mere mistake of opposing the very thing bargained for, keeping it just what it is,—a swamp.⁽⁵⁾

Are you, then, not to learn from ages of mistake ? Is past example no beacon to Lichfield ? Is Lichfield ever to remain “a city of philosophers,”⁽⁶⁾—a place where “the busy hand of industry seem to be quite slackened ?” “Ground drowned with water,” in the centre of England ! “A field of the dead !” And this when, if you annihilate only two pools, cut down certain air-polluting, worthless trees, and root up a single osier bed, you, at once, have two considerable spaces capable of being most tastefully, and, to purposes both of health and wealth, most profitably disposed, without laying out a tithe of what has been laid out on them since 1800 !

To purposes of health ! exclaim lovers of the picturesque. Are we not a most healthy population ?

You are not. Health, remember, implies strength: strength implies vigor and activity. Health is indicated, in part, by the clear bright eye, and by what is proverbially called, the blush of health. Instead of asking, then, whether you are not healthy, answer me:—Are you vigorous and active ? Do the heavy eye and the blanched cheek indicate activity ? Look at the poor of Lichfield, in their best days, as they pass under your nursery windows, and say, may you not apply to them Mr. Farr's picture of a neglected district, "every countenance in the place betrays symptoms of languor and debility?" And your application of this picture will be strengthened by the fact, that so many as eleven per cent. of the total population of this small town—a town situated on porous sandstone, and near heights, whose breezes partake of the mountain freshness—receive gratuitous medical relief in the course of one year !

Take a walk, any night this autumn, by your Minster and Stow tanks, and you will both see and feel the cause of debility. A chilling dampness strikes to your very bones, while you perceive mists arising from the tanks, and exhalations from fermenting "segs;" such mists and such

exhalations being notoriously depressing. "It is evident," as observed in the Physical Geography, "that the nature" (and, we may add, abuse) "of the soil must very materially operate upon climate. One which, from its porous character, allows the rain descending upon it to pass freely into the earth, will emit much fewer exhalations than one, which retains the water near the surface. Thus clayey, or marshy, grounds lower the temperature, and, especially in hot and humid climates, affect the atmosphere in a manner *pernicious to health*. On the other hand, those which are light, stony, or calcareous tend to make the atmosphere SALUBRIOUS." In a former quotation, also, we find marshes called "*pestilential marshes*." Facts plainly and beautifully illustrated by Dr. Mantell.

And so it is, that man's own neglect of natural blessings must ever tell against himself. Who, for instance, has not heard of Batavia, its mudbanks, its fogs, and its depressed population,—things noted even in common gazetteers? Who has not heard of Bœotia? But Bœotia, like Lichfield, could boast of its eminent individuals; although, from want of energy in the mass of population, it gave origin to the Latin proverb, *Bæoticum ingenium*, to express an inactive disposition.

Who has not heard of that curse of England,

scrofula? of that scourge of Ireland, typhus? Who has not heard of plague, yellow-fever, black-fever, jail-fever, camp-fever, Walcheren, Pontine, Lincolnshire, and other marsh-fevers,—diseases all referrible to man's own neglect?

To prove by adequate appeal to medical testimony how these examples bear upon that of Lichfield, is foreign to the nature and design of this essay; but it may not be irrelevant very briefly to mention the notices of a few popular authorities, on marsh exhalations; as well as some recent facts regarding such in Lichfield.

CHAPTER VIII.

OF MARSH EXHALATIONS AND FOGS.

ONE of the oldest examples on record of the injurious character of marsh exhalations is that given in the very commencement of the *Iliad*, and described as a Pestilence in the camp of the Greeks; commenting on which, Maclaren, in his *Topography of Troy*, observes:—"The marshes near the mouth of the Scamander, which are still the occasional source of fever to the neighbouring villages,—as testified also by Clarke iii. 93, and Walpole p. 98,—afford a rational explanation of the pestilence, which raged in the Greek camp, and was ascribed, with some truth, to the agency of Apollo, or the sun." Homer's description of it is, that the offended deity "came like night," or put on the gloom of night to infest the camp; and that inferior animals suffered from the pestilence, before man did. Which account means that the sun was veiled from the locality by dense fogs and marsh exhalations, and that the animals, which first breathed these exhalations, in consequence

of the downward position of their heads, were the first to suffer in the pestilence.

This disease, in fact, was neither more nor less than marsh-fever; speaking of which same example, another commentator, Olivier, records, that “the wind blowing from N.N.E. at Sigeum, almost without interruption, during the summer, brings the putrid exhalations on the east side of the river, which occasion fever; and, towards the end of summer, the wind, turning to the south, produces the same effect, by transporting the effluvia of the marshes south of the town.”

Thus, in this brief notice, you have the unprejudiced and concurrent testimony of no less than five popular authorities to prove, that a particular marsh may, and often does, induce marked febrile disease, by contaminating the atmosphere. And any district that in any—the very slightest—degree, resembles it, must, in such degree, suffer bodily infirmity, if not marked febrile disease.

Now, that Lichfield does, in some degree, at least, afford evidence of a tainted, and, consequently, depressing atmosphere, is so notorious to even peasants in the neighbourhood, that a man, who was mending the road near Whittington Heath last summer, on being asked if, when it was clear on the Heath, he ever took notice of a mist or fog over Lichfield, exclaimed in these exact words :

“ Oh ! bless you, sir, you’ll see it very frequent. It begins theere, and goes roight down over that hollow-way, by them theere trees, when it’s quoite clear here. See it ! Oh ! bless you, it’s quoite pleen.”

Since then, remarkably dense, cold fogs have been experienced in the “hollow-way.” Thus, to speak only of a date so recent as the October of the present year, on Tuesday, the 6th of this month, at half-past seven in the morning, so dense was a fog in Stow valley, that the large willows there were invisible, at a distance of a hundred and fifty yards, the sun appearing thence of very faint light, and as red as blood ! This fog was, moreover, so cold, and such a total screen to picturesqueness, that a most especial admirer of the pools having set out towards Stow, for his morn-
ing’s walk, found quite enough, at the very entrance to the meadows, to turn him back !

His pampered nuisance drove him from the gate,
To seek for sunshine in a loftier field.

And if he had gone a little distance out of the town, he would have found it ; for even on Green-hill, abounding as it does in clay,—a cause of retaining moisture on the surface,—although there was an extended mist, the sun appeared too bright

to be gazed at with the naked eye ! At Swinfen, near a marsh district, or ancient fen, there had been a fog, more than three hours previous to the time just named ; but it had totally passed away, when the fog remained dense in Lichfield ! At Gorton's Lodge, and particularly at the opposite side of Burntwood,—as altogether unprejudiced and indisputable testimony, received on the day under consideration, proved,—though there had been a hoar frost, on the preceding night, the morning was characterized by the health-bearing breeze of the Chase, and by the luxury of uncontaminated sunshine !

So much for the “ornaments” of Lichfield, in the morning. Another example, which occurred within the same week, exhibited some of the accompaniments of their picturesqueness, by night.

On Sunday night, the 11th of October, during a general prevalence of remarkably fine weather,—Barometer 30.15 ; Thermometer, out of doors, 38 ; Moon full, in clear, blue sky,—a mist extended some distance south of Lichfield. From Fazeley by Tamworth, Amington, Edengale, Elford, &c. *the low grounds* adjoining certain streams appeared, at a little distance, white, as if covered by a hoar frost ; but along the Tamworth and Nottingham road, between nine and ten o'clock, there was no appearance whatever of mist ; the sky was

seen beautifully clear. In Lichfield, at twelve o'clock, the fog in the market-place was so slight, that the vanes on the tower of St. Mary's church were readily distinguishable; but in Dam-street, looking across a pool from the spot where R. Lord Brooke was shot, the large tower of the Cathedral, barely two hundred yards off, was scarcely visible! The small towers, on even nearer approach, were totally invisible!! As for Stow meadows, at this hour, if a dozen of the strongest amongst the lovers of the pools had been confined there until they could get a peep at something worth sketching, (besides themselves—a subject worthy of H. B.,) they would not have forgotten their *pains* in search of the picturesque, for some time to come, unless they happened to die of rheumatic fever caught in the attempt; for the chilling dampness of the fog there was intolerable!

By sunrise, on the following morning, an unusually dense fog prevailed throughout the town.

To say that these exhalations do not induce a violent outbreak of disease, and that Lichfield does not suffer, *every year*, from fever of decidedly severe type, is to say nothing in defence of your pools.

Was there an outbreak of Pestilence, *every year*, in the Greek camp? Has Jessore been characterized, more than once, by an outbreak of

Blue Cholera? Lichfield *has*—your histories all testify, that it has—suffered during visitations of epidemic disease; and this so severely, that, in a recent review of *An Inquiry into the History and Influence of its Waters*, the reviewer—perhaps the very highest authority on medical statistics, in England—appears to doubt the fact, that *more than half the population of a country town perished, within a few months, during a single visitation of the kind.*

Such is the iniquity of pounding up marsh water in a confined, inhabited valley, that even an extent of sandstone near it is insufficient to counteract its baneful influence! For, although clay abounds in the neighbourhood, the town of Lichfield, for the most part, stands on porous and dry foundation. Thus, in the Close and other localities, sandstone is found very near the surface; while, at the end of Beacon-street north, at Stow House east, and in Saint John-street south, the natural rock is seen exposed.

The “bane and antidote are both before” you,

thus proving what *might* be done by taking advantage of natural gifts.

From these general and local facts,—AND THEY ARE FACTS, WHICH CHALLENGE CONTRADICTION,—people in Lichfield may deny serious

inference, until they are suddenly overtaken by endemic fever of aggravated type. And overtaken they may be, even if their predecessors had escaped, for generations ; as many notable examples testify. The swamps, ponds and jungles of Jessore had long existed with comparative impunity ; medical police was, for generations, unattended to ; and yet no violent outbreak of endemic disease ensued, until the Giant Pestilence started forth, as sudden in its birth as it was merciless in its progress.

This especial example is given, because so recent, and because the visitation of Asiatic Cholera is so well remembered. But it is far from being a solitary example of the kind, the inhabitants of numerous other jungle districts also having required nothing less than the scourges of pestilence and the terrors of death to convince them of their error. Even in Great Britian, only the century before last, what convinced our ancestors of the necessity of attention to the commonest principles of medical police ? What taught them to think of abolishing cess-pools,* and dung-ports,

*This is quite a mistake ; for so late as 1816, the still untaught Lords of the Manor of Lichfield gave their Commissioners of Paving and Lighting permission "*to make a cess-pool in the Swan-moggs,*"—a liquid dung-bed in the heart of a city !

—sources as they were of revenue, like “le Middill Poole,” and le “Comyn Muckhill” of Lichfield? What taught them to substitute unexposed sewers, for open ditches and sinks,—“places where corruption was gathered?” What taught the folly of having lofty trees and high lumbering walls to impede free currents of air through densely populated streets? Depopulating fevers and plagues taught these things; and much remains yet to be taught. “We are shocked,” observes an intelligent writer, “at the rude custom of a by-gone age, in allowing open sewers. . . .to taint the air, and offend the sight and smell. But, even yet, such stagnant sinks of impurity are permitted, as will make posterity exclaim at us, more than we exclaim at our ancestors.”

This alludes to the metropolis. And if medical police be there found fault with, by eminent authorities, who can sufficiently decry the total, purposed, and parsimonious neglect of it in Lichfield?

CHAPTER IX.

OF REPAYMENT FOR LOSS OF THE POOLS, AND OF
THE FUTURE DISPOSITION OF THEIR SITES.

Of the site of the Minster pool.

1. This site, if rented at the rate of rent of, and outlay on certain lands adjoining it,—upwards of £70 an acre,—would produce a considerable income to the corporation. Exclusive of fine,—or covenant for outlay, which comes to the same thing,—“a piece of land gained out of the Minster pool” is let at the rate of £46. 7s. 6d. an acre, which rent, therefore, it is perfectly fair to adopt here, as it has nothing whatever to do with the buildings on the land alluded to.

2. *Who will pay this rent?* you may ask. So many as seven or eight directly interested parties would pay it, if not a higher rent, as the site when reclaimed would be essentially accommodation land, in the very centre of a town, near properties already valuable and occupied by wealthy parties.

First, the tenant of the house in Dam-street would pay it, the new garden land being directly

opposite his house, and the house itself being on one of the few convenient sites in Lichfield. Another party to pay this rent will, no doubt, be the managers of the Diocesan School ; for liberally ought they to pay for the destruction of a constant source of malaria, immediately under the school-room windows, and cheerfully ought they to pay for an accession of Play-ground,(7) or, at all events, site for a Racket-court, so close to the school. The other parties alluded to are those, whose properties immediately adjoin the existing pond.

3. *The reclaimed land may be let on strict leases*, so as to encourage improving tenants, and, at the same time, hinder them planting tall, screening trees, which would obstruct the general prospect, and,—what is of infinitely greater consequence,—would impede adequate ventilation of, and increase dampness in, a town peculiarly (although, in some respects, favorably) situated in a sheltered valley.

Indeed, on the subject of reclaimed land here, some persons are even of opinion,—as it is of prime importance for beasts to have soft ground to stand on, during fairs,—that a portion of the locality occupied by the present Minster pool might very well be spared for a Fair Green,—a *Boarium*, which would effectually remove a fre-

quent nuisance from Boar-street, and save the trouble of laying down a green-sward, at such an unreasonable distance as Greenhill ; where, to be sure, if a few shabby looking, worthless old houses were removed, there would be room enough—if more than an acre and a half be room enough—for a Fair Green, with five good roads leading to it, into the bargain.

Of Stow.

4. As to this locality, it can be proved to demonstration, that, by a new disposition of roads, both public and private property would be very much benefited ; the public being literally paid, both in land and money, for the benefit conferred on public property ! And to all this add, that the approach to Stow church, and the roads in general would be more convenient and more level than they are, at present ; to say nothing of the tasteful, and morally useful disposition of the gardens, according to any particular plan.

Stow already affords an example of the value of garden land which is rich in eluvial peat. The public walk immediately opposite the Parchment Cottage, at Stow, divides certain gardens. Those south of the walk,—as the records of the corporation, and maps and leases prove,—are “ground gained out of Stow pool.” On merely

looking at the divisions, north and south of the walk, you, at once, perceive such a contrast, as will readily lead you to believe, that there is, or ought to be, a considerable difference in their rents ; so much richer is the south soil.

5. But as some persons fancy, that years must elapse before mud can be brought into cultivation, it becomes necessary to unteach them in this particular, by citing two or three analagous examples.

Thus, in an Agricultural Survey of the especial bog county of Ireland (Kildare,) the author writes : “ All persons here, who wish to undertake the draining of bogs, would do well to view the great work effected by Mr. Birch. He took a large tract of bog, in the centre of which stood an immense lake : he made a surrounding drain to the gravel, in order to obtain a fall, and a direct drain from the lake to the exposed gravel ; whereby *the lake-basin was laid so completely dry, as to be, in a little time, fit for tillage*.....Most men begin bog improvement by attempting drainage on the surface.”—The Lichfield Town Marsh; to wit.—“ I trust, from what has been said, that the propriety will be granted of, at once, attacking the under water. Mr. Bagot, of Nurney, four miles south of Kildare, having, for the purpose of draining an extensive bog, been forced to surmount considerable difficulties, in consequence of the

depth of the bog, and of fallen trees in it, &c. was for a long time engaged in discharging the surperfluous water ; but this, at length, effected, *the reclaimed land was immediately fit for cultivation.*”

An example yet more in point is that of the Fish-pond Gardens of Nottingham.

In the Midland Counties Railway Companion, p. 6., it is recorded, that, “ below the castle rock, formerly lay the fish-pond, and when the castle was inhabited, many years ago, this pond was a large sheet of water well stocked with fish. About the year 1720, it was let to the Old Waterwork Company, as a reservoir, and was suffered to choke itself up with mud, sand, &c., until it became little better than a swamp. It has since been made into gardens for the use of the inhabitants, and bears to this day the name of the ‘ Fish-pond Gardens.’ ” To which account I must add, on the authority of a friend, that, *when the choked-up pond was finally drained, the site became speedily fit for cultivation, and is now a source of accommodation, profit, and ornament !*

* * It was, at one time, my intention to have added a map by way of explanation of the foregoing statements regarding Stow ; but a consideration of the utter apathy with which every thing in

Lichfield is received, when unconnected with that demoralizing feeling, called political, has caused me to abandon this intention. A manuscript map of the kind, however, is already deposited amongst the corporated records.

6. *Of outlay on reclaimed land.*

This subject, you may fancy, has been hitherto lost sight of; but it has not; for—as any practical man, like David Wood, will tell you—
THE CORPORATION, ON THIS ACCOUNT, HAVE NO NECESSITY TO DRAW ON THEIR PRESENT FUNDS FOR A SHILLING. Because they may let the present mill-houses on building lease; and the value of the mill gear, and sale of land at Stow and that of the old Work-house, &c., would more than pay for the first alteration required.

Whether, or how far, the Feoffees of the Conduit Lands would assist is unknown; especially as there are many other sites in Lichfield, which have a demand on the funds entrusted to their management for the benefit of the town.

But when,—the Minster pool being drained,—a little dam in one arch, made at an expense of a couple of pounds, would yet keep a great extent of marsh-land above it exactly as it is, at present, can it be possible, that the tenants of the Town

Marsh would pay nothing for having their tremulous quagmire converted, as it were by magic, into solid garden land, not only of sound, but of the richest quality ?

Would Lord Lichfield, independently of his interest in the improvement of a town whence he derives property as well as title, pay nothing for the essential benefit conferred on part of his property, some distance beyond the gas-works ?

The trustees and tenants of the Hospital and Friary properties nothing for that of their's ?(8.)

Other parties nothing for that of their's, in an opposite line of valley, where land reaching almost to Pipe Grange can never be effectually reclaimed without drainage ; as proved by the example at Netherby, mentioned in Note 5, and many similar examples recorded elsewhere.

Is the improvement of land in Stow valley, as being corporate property, to go for nothing ?

Will the inhabitants of the town pay nothing for having the very air they breathe purified, when other mirrors besides their pools so plainly shew the truth of the physiological maxim, that "without pure air there cannot be pure blood?"

Yet, not a farthing being raised on these accounts, the town and neighbourhood may be extensively improved, at the same time that the corporate income is improved also.

7. *To sum up the most limited and contracted view*, then, omitting any and all of this support ; omitting especial notice also of the enormously high and unprecedented rents which are, at present, paid for the “intrails” of ugly mills and muscous⁽⁹⁾ pools ; and how these rents are secured, and how found fault with, the case stands thus :—

THE GROSS-RENT of the Lichfield mills and pools is, at present, £196. 10s. Od. a year. That is,

	£.	s.	d.
RENT of the upper mill on a seven years' lease,			
which expires in March, 1841	105	0	0
Stow mill let to a yearly tenant	60	0	0
Fishing of Stow pool, (seven acres and a quarter)	21	0	0
Fishing of Minster pool, (two acres and a third)	10	10	0
	<hr/>		
PRESENT TOTAL GROSS RENT	£196	10	0
	<hr/>		

From this deduct for GRAND REPAIRS OF, OR OUTLAY ON, BOTH THE BUILDINGS, say the interest of only £500 sunk every fifty years. (*See Inquiry, pages 49 to 56 inclusive.*) This cannot be set down at less than six per cent., the capital being sunk for so short a period. You thus reduce the rent to £166. 10s. Od.

From this, again, deduct £30 a year, for CURRENT, OR INCIDENTAL EXPENSES;⁽¹⁰⁾ and it dwindles to £136. 10s. Od.

But the average period for a cleansing of the bed of the Minster pool, from 1796 to 1840, has

been less than fifteen years, as before explained; and it is barely twenty-seven years, since the more defended, because inferior, pool was extensively cleansed, according to former definition of this phrase.

The average of these periods, then, is twenty-one years: so that, when you consider what may hereafter be effected by intercepting springs, under various systems of drainage, in Pipe-marsh and Sandford vallies, whence your pools are supplied, you must grant that, at least, a year's income will be lost every such average period of twenty-one years, as "LOSS OF TIME THE MILLS STOOD IDLE," or "loss of time considerable," according to the old phrases, and constant want of water, according to the new one. And, therefore, deducting £196. 10s. 0d. every twenty-one years, at the rate of annuity commonly allowed, the rent is yet further reduced to £122. 10s. 0d.

The time for A GRAND CLEANSING now arrives. Lovers of the picturesque declared, seven years ago, that it had then arrived; for the puddles were, even to them, offensive, in 1833,—a year of endemic fever.⁽¹¹⁾

Such a cleansing,—since BOTH pools are, now, in a state of unexampled filth, as to the extent of it,—would cost £600, merely to lay the mud on the banks, and say nothing about carting it away.⁽¹²⁾

It may be true that, next year, and the year after, parties will subscribe £100 each ; as certain other parties subscribed, on a late occasion of the kind. Let them subscribe. No matter who pays the piper in the Pantomime, the mime is got up ; and the scene-shifters, and clowns also must be paid, from the first note of the overture, until the dropping of the sluice restores the rate-payers and the marsh to renovated fortune and beauty.

The sum paid for this stick-in-the-mud, however “grand, demonstration,” would deduct £44. 2s. 0d. a year, to repay it in twenty years, if it were borrowed from an Assurance Office. Deduct £44. 2s. 0d. then, from the rent, on this account : and thus, instead of the one—hundred—and—ninety—six — pounds—ten—shillings boasted of, when the ornaments are seen through the magnifier of a fog,

The present net-rent of the Lichfield mills and pools is barely £78. 8s. 0d. a year.

Here are the figures for you in another form.

	£.	s.	d.
PRESENT GROSS-RENT	196	10	0
DEDUCT outlay on buildings	30	0	0
Incidental expenses	30	0	0
Idleness of the mills	14	0	0
Grand cleansings.....	44	2	0
	118	2	0
PRESENT NET-RENT	£ 78	8	0

The net-rent is barely this amount, observe, on the lowest estimate for deepening,—or rather, as certain other work is called, “remaking,”—the pools, and for laying the mud on the banks, as just noted. In proportion as you must pay for carting away the mud, so will the net-rent be yet farther diminished.

Remember what the deepening of the Minster pool alone cost, in 1802 and 1803. A cleansing now of both pools, at the same rate, would cost upwards of £3000! A sum which paid by instalments, instead of the £600 just calculated on, would swallow up all the net-rent here allowed, and bring the mills and pools nearly £100, a year, in debt!!

Somewhere or other in your Histories of Lichfield,—no matter what page,—an expanse of marsh-water, as a puddle in a storm, is alluded to, in quotation of some “philosophical” document or other, under the learned name of GURGES DECURRENS.

Ainsworth defines GURGES to signify a “whirlpool,” and, by metaphor, “a riotous spender, one that cannot be satisfied, a glutton:” DECURRENS means “running down.” And if your gluttonous pools are not running down, and swallowing up much of the corporate income, call them, without metaphor, whirl-pools; and *take care* of them.

8. *As to the expense of carting away mud from a pool*, some speculative farmers think nothing ought to be said about it. Not so, however, the experienced farmer, who wrote the leading article of the Journal of the English Agricultural Society. This article will long remain standard authority; and young gentlemen in Lichfield, who, at present, drive only nursery go-carts, had better read it in due time, lest they may take it into their heads, in 1863, to cart away, to some distance, the filth of their whirl-pools.

The writer just alluded to, after describing the really surprising advantage—that is, profit—to the farmer of mixing with peat an adequate share of of clay and sand, *obtained on the spot*, goes on to say:—“It might be supposed that the reverse of this process would also succeed. The attempt has been made; but no instance,”—no authentic instance; for people may assert anything,—“is known, in which it is found to have succeeded. *The expense of laying on the large quantity required must probably swallow up any profit that could be derived.*”

There are also other articles, or chapters, of acknowledged practical authority in various Price-books, and Engineer’s Assistants, from which you may collect precise items of increase of expense for run of plank, and distance of carting away.

Some of the rising generation, who happen to see the foregoing account, on page 65, may fancy it overcharged, and that it cannot tally with statements made in a recent Inquiry into this matter. But it is not overcharged, and it does tally.

In the Inquiry taking more extended views regarding both past change and future improvement and including also the rent of the Town Marsh,—or City Marsh, if you prefer the name,—it is shewn, that, without deducting a farthing from the gross-rent; by making all sorts of allowances in measurement, time, and money, which lovers of the picturesque could, by any possibility, seek; and by claiming only HALF-RENTS for land, interest of fine included, the corporate income is not lessened.

The present object, without throwing facts overboard,—like the infatuated sailors, who used to throw the most holy thing overboard, when their vessel, like your corporate income, was running *foul*, in a whirl-pool,—is to shew that, by taking ESTABLISHED RENTS, the town section of this income will be, at once, raised three, or more, times its present value; and when the leases of the Town Marsh and of certain premises expire, it will be yet farther raised!

The maintaining of expanses of marsh-water in the town, then,—no matter at whose expense,—lessens the corporate income.

To lessen this income, now, is to cause a borough rate, eventually.

Will the persons, who so lessen it, bind themselves and their children to the exclusive payment of the rate ?

If not, can Lichfield afford to squander hundreds after hundreds of pounds in supporting "ornaments," at a time, when its Town Hall is in decay ; when its unoccupied houses are becoming more and more frequent ; and when even its public foot-way of broken flags and rounded curb-stones is, in places, not only bad but positively dangerous ; one fatal, and many a minor, accident from falls on it, to wit ?

The advantage of yielding, at once, to NATURAL REVOLUTION may, perhaps, as a question of money, be better understood from the following

COMPARISON OF ACCOUNTS.

	£.	s.	d.
RENT of accommodation land, as just explained	108	4	0
Stow gardens, at a present rate of rent at Stow	109	13	0
House and garden in Dam-street, on building lease . .	20	0	0
House and premises at Stow, on building lease	15	0	0
	<hr/>		
<i>Proposed immediate net-rent</i>	£252	17	0
<i>Present net rent as allowed</i>	£78	8	0
	<hr/>		
IMMEDIATE BALANCE IN FAVOR OF THE PROPOSED PLAN	£174	9	0
	<hr/>		

If to this it be objected, that rents in Lichfield must come down, some twenty, or five and twenty, per cent., it must be granted, at the same time, that the rents of your mills and pools must come down also. Yet, it so happens that if you deduct 25 per cent. from the rent of accommodation land and gardens just calculated on, THE NET-RENT so reduced will yet remain in excess of the present, or unreduced, GROSS-RENT of £196. 10s. 0d.

Or take it in this way ; since you calculate here by rods of rather more than seventy-five and a half to an acre.

Certain gardens in Gaia-lane are held by laboring men at 4s. 6d. a rod. . Accommodation land, therefore, in the very centre of a town cannot be let, under any circumstances, for less than double the worth of land out of which laboring men earn a livelihood. Renting the accommodation land, then, at only 9s, a rod, Stow gardens at only 3s. a rod ; and letting both the present mill houses and premises,—more than a quarter of an acre,—for only £35 a year, altogether, *the reduced net-rent exceeds the present gross-rent, as thus :—*

	£.	s.	d.
Accommodation land, at reduced rent.....	79	8	0
Stow gardens, at reduced rent	82	5	0
Present mills house and premises	35	0	0

REDUCED NEW NET-RENT £196 13 0

The present gross-rent being, as before stated, less than this. Observe, moreover, that the foregoing comparison of accounts does not include notice either of imperfectly reclaimed land at Stow, or of that town-disgracing swamp west of the bridge. But the most effectual, as well as infinitely the cheapest, way of reclaiming these places is by draining the pools; because you hereby directly attack the under water. (*See page 59*) And when the texture of their sod is, in consequence, rendered sound, the rent will be many times higher than it is, at present; thus raising the corporate income so much more than the amount just stated in the comparison, and thus exemplifying ^{the} *extensive*, PERMANENT, and PROGRESSIVE improvement alluded to in the Introduction.

CONCLUSION.

LADIES AND GENTLEMEN OF THE RISING GENERATION OF LICHFIELD, I have made a broom for you ; but cannot afford to sell it at wholesale price, without a wholesale order. It is not a heath broom ; though it has been partly collected on Whittington Heath ; but, as a bundle of facts, it is much tougher than heath : and it will serve better to clean out “ filth ” and cobwebs, when you are old enough to use it.

Don't fancy it made to brush away your “ Cobwebs to catch flies ; ” those nice little nursery tales, in which the little boy says, “ I have a spade and a hoe ; and I can work with them ; I have a bit of ground of my own to work in.”

Oh ! no : this broom is made to give you two bits of ground to work in, by sweeping away two “ filthy ” old marsh cobwebs, that now hide them from your view ; while, unfit for a fly, they only serve to entangle the hooks and *humors* of very slow animals.

Nurse may tell you not to mind a broom that is not more shewy and better *bound* than mine. She may think it “too dear for the size of it,” and that the “stoof” it’s made of is not worth a fig ; though she might, perhaps, be tempted to buy it, if it had more *leaves* in it.

She is, no doubt, a very prudent young woman, who must have heard of the Sibyl’s leaves, and of those which declare, on higher authority, that a fig tree, which does not bear good fruit, ought to be cut down, as anything else ought, which only cumpers the ground. If she assert, in a pet, that your pools no not cumber the ground, ask her :—What are the fruits of all past labor on them ? And bid her look at them, and look in the glass for an answer.

She, to be sure, may think, like the lazy man in the parable, that you may “let them alone this year also ;” and that you can surely contrive, without new brooms, to clean them in the same way that your friends cleaned one of them, t’other day, while spinning the cobweb with lines and arches on only one side of it.⁽¹³⁾

Do you praise the broom, that will best serve to sweep away nuisances, and raise something stronger than cobwebs against a Borough-rate.

Never mind nurse. Send her to look at the funny picture of the man in a room of cobwebs,

in Gulliver's Travels ; or to that, in The Tempest, of men "dancing up to the chins" in a "filthy pool." And remember there are two ways of sweeping out the filth of a marsh ; one way being to remove "the filth cast up of the water ;" the other way being to remove the water itself as the cause of the filth. In fact, there are two ways of doing anything ; even of imitating nature. And this puts me in mind of another

NURSERY TALE.

A famous mimic on the stage, long ago, had a great run in imitating the squeak of a little pig, which he pretended to carry under his cloak ;—the squeak was thought so very natural.

At length, a rival of his having challenged him to a trial of skill in this particular style of amusement, he met the innovator on the old stage, before a crowded house.

The favorite squeaked first, his friends declaring that nothing could be more natural ! They said, in short, they could almost fancy the deception,—for they all knew it to be only a deception,—came from a pig-sty !

The rival then began : but they would not listen to him. People in the Boxes laughed ; and the rulers of thunder shouted "Off, off, off."

“Ladies and Gentlemen,” said he, bowing to the Gallery, “I shall go off. But, before this, you must learn, that it was not a deception which you laughed at. You laughed at nature ; for you laughed at this little pig under my cloak. Look at him ! I pinched his ear to make him squeak, and tell you how little you know about the favorite you pay for.”

Now, this old tale may serve to put you on your guard, when you see admirers of a pig-sty imitation of natural beauty shut their eyes against natural facts, in 1863. For there will be then, as there are now, two rival plans before the public here : and, by this time, your friends, though ever so slow, will begin to open their eyes ; and my broom,—though ever so badly put together,—will get tougher and tougher, all the time. It's SURE *to gain ground*.

THE ANCIENT AND FAVORITE PLAN is to remove the filth of a marsh, every now and then ; while, at the same it cherishes the cause of it !

And what is the effect of this ?

Look at your pools,—the cause of the filth,—this October, 1840, and you will see them as green as a grass-plot ! For the effect is, that, like spoiled children, they get worse, and worse, and

worse, the more they cost, and more they are petted. Thus they cost your papas and mammas, uncles and aunts, and all your friends and relations here a great deal of money, only a very few years ago, to clean them ; and yet they are, now again this year, filthy and offensive ! While the town itself is like a bold boy over a puddle who, for being so perpetually troublesome, is, at length, sent into the corner, where he is called a nuisance by every body.

THE NEW PLAN is this :—It would treat the little town in the corner, just as it would treat a little child there ; weaning it, at once, from bad ways, and training it up to good ones.

And what would be the effect of this plan ?

Like a little child well taught, the little town,—throwing aside filthy and unwholesome sops,—would soon grow good : and then, as it grew older, it would grow better, until it would, in time, become ashamed to be called a nuisance by any body.

“ Here we go *up*, UP, UP,

There you go DOWN, DOWN, *downy* :

There you go back-wards, and for-wards :

And hwhew ! for [Lichfield] towny.”

Young ladies and gentlemen, this new plan, which, at present, is only designed “to provoke thought of improvement,” involves a serious con-

sideration of your future *prospects*. In 1863, as in the present day, it must engage the attention of two parties ;—one reasonably acquainted, the other totally unacquainted, with general facts relating to expanses of marsh-water in a confined, inhabited valley.

The latter party, as natural receptacles for the worn-out ideas, that are constantly being cast off, as by a side-current in the onward course of things, are of worn-out fashion in all their schemes, which relate to NATURAL REVOLUTION. Their notions, in fact,

“Do cream and mantle like a stagnant pond,
And do a wilful stillness entertain,”

in almost every thing but the philosophy of village politics. Nor can they help it ; since even of their very atmosphere it may be said, as was said, long ago, of certain pools,—alluding, however, in poetical license, to the depressing influence of an atmosphere contaminated by the exhalations of pools,—since it is fair to quote school-books for school-boys,

“si quis faucibus hausit,
Aut FURIT, aut mirum patitur gravitate SOPOREM.”

Which means, that whoever takes in their *airs* is, at times, as politically MAD, and, at times, as poolitically SLEEPY as themselves.

This latter fact you may, perhaps, consider only as a joke ; whereas, on the contrary, it is to be accounted for on some of the soundest physical and vital principles.

Approval of NATURAL REVOLUTION, therefore, cannot be expected from persons, who can't help either going crazy or going asleep, at a time when having their wits about them they ought to be wide awake. But the measures here proposed for the improvement of the town and neighbourhood of Lichfield, being submitted to competent judges,—such as scientific and practical agriculturists and gardeners, persons of experience in the disposition of grounds for picturesque effect, agricultural chemists, geologists, accountants, medical authorities, and persons practically acquainted with the cleansing of pools,—*if such persons condemn the author of this address, they are at perfect liberty to souse him, over head and ears, in the filthiest part of the filthiest pool in Lichfield.*

A P P E N D I X.

APPENDIX.

1st. OF THE BISHOP'S GRANT OF MILLS AND POOLS TO THE CORPORATION OF LICHFIELD: 2ndly. OF A REVOLUTION IN AGRICULTURE; and 3dly. OF THE INFLUENCE OF PUBLIC SEWERS ON RECIPIENT EXPANSES OF WATER IN THE TOWN.

OF THE BISHOP'S GRANT.

“*Naturam mutare pecunia nescit.*”

HOR :

Assertions of very positive character regarding a particular interpretation of this grant induce me to notice it, however utterly at variance are the assertions with universal and familiar facts; and however unconscious of these facts are the parties, who propagate such assertions: and as unconscious must they be of them, as they are of the habits of the man in the moon.

It appears, that even persons of influence in the matter fancy the corporation compelled, by this document, to maintain, “for ever,” the mills—and, therefore, the mill-pools—of Lichfield! A fancy almost too absurd to merit serious refutation;

since it is not only known to school-boys, that the essential conditions of every binding and permanent law are, that, as an enactment, at once, “possible, useful, and just, it be conformable to the order and nature of things, and to men’s constitution;” but since strictly local examples most pointedly illustrate the legal force of the words “for ever,” even if applicable as asserted, which,—of course,—they are not.

To cite authority in support of our view of the principles of natural law would be idle; but in seeking to brush away this amongst numerous cobwebs†

*	*	*	*	*
*	*	*	*	*
*	*	*	*	*

† There’s an episode here, long enough for a pamphlet, about “COBWEBS IN ECCLESIASTICAL AND LOCAL HISTORY;” but the lines and interlineations are so like the meshes of a cobweb, that I can’t make out enough to put it in better form than the following NOTE.

P. D.

See Lye’s Dictionary on the word **FELD**, as applicable to an extent, or range of country; such as a plain in the land of Shinar,—a spot about the size of Christian Field, in land near Elmhurst. **BUR, BURG, BOROW, BURWE, BEREW, OR ETBEARWE**, land so named, which King Wolthere gave to Bishop Chad, immediately on his arrival as Bishop of Mercia. See Langhorne’s Introduction to the History of England for an accurate account of **THE NINE HUNDRED AND NINETY-NINE MARTYRS** put to death by a party of soldiers, at Lichfield, in one direction; John Ross’s account of **THE THREE MARTYRS** killed by a host, in another direction, where, (quoting Lichfield poetry)

“Down yon meridian fields afar,
When Mercia led chiefs to war,
Fell, in one hour, three monarchs brave,”

A few of the local examples before alluded to, cannot be overlooked.

or,—as civic authority designates them, with equal sublimity, “three knights martyred....blazing to the [whole] world the heraldry of her ancient arms.” A Short Account of Lichfield, about another direction in “*the distance*, the spot consecrated by the blood of the early martyrs, which gave *the city* the name of A field of dead bodies.” So that, as LICH now-a-days means dead bodies, and FELD an enclosed piece of ground, (formerly called a yard, craft, close, acre, or furlong,) the name LICH-FELD is applicable to every church-yard in the kingdom, as well as to a Lichfield in either Staffordshire or Hampshire. An Account of Lichfield Cathedral, which limits the site of the massacre of 1000 people, more than 15 centuries ago, to thirty yards,—of course,—in the Close; where secure foundation, natural line of the hill, (which runs nearly east and west, and to which the length of the cathedral is exactly parallel;) natural shelter, and natural defence, in early time, went for nothing. Compare Plot and Gulliver on this *point*. Chad’s taking up his residence at Stow, instead of the holy spot where the martyrs fell, was a grand mistake on his part; especially as Lingard is manifestly wrong in presuming to assert, that the industry of modern times has made ample amends for former omissions in ecclesiastical history,—or words to this effect. Giles must be quite out in his translation of Bede, pp. 3. 164—177. 187. 197—203. 310. 364; because he makes it appear that King Wulfhere, or Wulphere, so far from killing and eating his sons, for turning Christians, according to the legend, was actually himself a Christian, before he was a king! The fact of the Histories of Lichfield quoting the Latin copy proves that Giles must be wrong. Sharon Turner, in his History of the Anglo-Saxons, and Butler, in his Lives of the Saints, are guilty of equal mistakes in not giving sanction to all the Lichfield legends, coming as these holy matters do from Butler’s own church. Archbishop Usher’s opinion of our *cloak* for legends, SAINT AMPHIBALUS, must not be listened to. Borlase, Camden, and Lye, are all wrong on the meaning of CASTEL, or CASTLE, as applicable to a camp, or Castle Ring, in either Derbyshire or Staffordshire; as a CASTLE DITCH, and a castle in the air, in Lichfield, prove past all dispute. Minsheu also must be wrong when he would have us to believe, that BARBACAN is an Arabic word, which being first adopted on the coast in Italy, Spain, Portugal France, and Holland came coastwise to England; whereas it is evidently, “I ken,” of Saxon origin; notwithstanding that it remains to this day unadopted in the original, because inland, country of the Saxons.¹ Omitting notice of the present pronunciation of the words *where*, *great*, &c.

Thus, on a renewal of the very grant under consideration, some two hundred and fifty years ago, the citizens entered into covenant with their Bishop, that he, the said Bishop, and his successors should have right to nominate a Senior Bailiff for the city, from year to year, *for ever!*

It was not very long after the yielding of this perpetual right, when a monarch, who

“Never said a foolish thing,”

honored and enriched the freemen of the town, by giving them Sanction Royal to exclude their fellow-countrymen as “foreigners,” *for ever!*

And the freemen, for some time, absolutely fancied this Sanction valid; pledging one another in Common-hall to use their “utmost endeavours

see Minsheu on the derivation and pronunciation of *e* and *ea* in BEACON, lea, tear, measondieu, &c. Chaucer’s writing of heal for hail, rean for rain, &c. Falstaff’s pun “If reasons were as plentiful as blackberries.” Minsheu on the indiscriminate use of *o* and *oa* in bore, BOAR; gore, goar; ore, oar; rore, roar; shore, shoar; sorc, soar. B. C. P. still reads eloke, fole, &c. See Stow’s Chroniele, on the destruction of DENTON’S CROSS, which was destroyed amongst a thousand other crosses, during the completion of the Reformation; but destroyed, according to the Histories of Lichfield,—quoting the Chroniele,—only forty years after Stow died. * * * A proof, from its size, of marsh exhalations, called JOHNSON’S WILLOW; because the Doctor twice received (but forgot to publish) a formal account of it. A view of more modern cobwebs on marsh foundation would only appear too *warped* for school-boys in 1863. The reference as to the present state of CHAD’S WELL is to the well itself; “the most haneientest thing of Lichfield, which nobody cares nothing about; for there’s many a one as doesn’t know which is which, that ’ere hiron well or this,” as a native of Littleworth once described it.

to prevent FOREIGNERS," following trades in this city" (*for ever!*)

Then another monarch was most graciously pleased to make Lichfield a free city,—just as Old Gatton and Old Sarum had been made boroughs,—*for ever!*

A little place called the Close, which modern artillery would blow to atoms in an hour, was, long ago,—before the invention of gunpowder,—made a closed and privileged place, *for ever!*

An *ever*-privileged county of fifteen, or sixteen, acres was it afterwards made; and not so very long since. And yet, this day, in consequence of unopposable change, its boundaries are unknown to any body!

So late as June, 1806, the corporation of Lichfield,—taught, at length, that things must change,—came to a resolution no longer to pay a large annual amount to that ghost of by-gone times, called Green Hill Bower; "a custom no longer of any use, but a great nuisance and expense," like the pools. Whereupon some of the public here stormed about their rights; boldly maintaining, that the Bishop's grant (which they had never read) compelled the corporation to uphold the Court of Array and view of men and arms, *for ever*.

And what, in NATURAL REVOLUTION, had this Court dwindled into?

It had dwindled into a review of plum-pudding by Jack-in-a-box, and into a jumping of “Tom Fool and Maid Marian” by Jack-puddings in the street !

Numerous covenants of your ancient prebends, canons, vicars, requiem-singers, placebo-chanters, coiners, grey-friars, masters, ushers, free and poor scholars, and others were all legally framed to be and continue in force, *for ever* ! But they have all vanished in NATURAL REVOLUTION : and like them your nature-opposing ornaments must vanish by the fiat of Omnipotence ; and people, at no distant period, will ask :—

Where used the pools to run ?

Nay, even to day, is not the site of the ancient Bishop’s pool of Lichfield almost unknown to the mass of population here ? How many old inhabitants are there in the town, who—now pretending to know all about it—never, until this year, even heard by name of a Nether pool !

Since, then, such changes in nature are unavoidable ; since even NATURAL REVOLUTION IN PUBLIC OPINION has caused so many grants and covenants to lapse into neglect and desuetude, what preposterous, idle nonsense is it to imagine, that all the Bishops in the universe, backed by the whole calendar of real and *amphibolous* Saints,

can check THE ORDAINED REVOLUTIONS OF OMNIPOTENCE !

But of all imaginations, those regarding pools in Lichfield are some of the most “philosophical;” as Doctor Johnson and Captain Gulliver would say. For on viewing elaborate designs which represent not only undefiled but undefined waters, with trading barges and other accompaniments highly ornamental ; on reading Miss Seward’s praise of

“ Stow’s calm lake and grassy shore ;”

and on hearing the natives descant on the picturesqueness of the place, at a distance from the gloom of their fogs, and the “filth” of

“ The *filthy* mantled pool”

above Stow, a stranger might well be led to suppose that the “fair city” was one of living instead of “dead bodies ;” and that, at least, the Trent flowed through the valley expanding into lakes more beautiful than those of Windermere and Killarney !

Yet, after all, what are the lakes of Lichfield ? They are neither more nor less than water pounded up in a marsh !

Represent them to be what you will or wish them to be ; make them what you will on paper,

they are marsh-water in nature. They are, therefore, filthy water.

Agricultural experience and scientific observation, nearly two thousand years ago, testified, that marsh-water was invariably offensive (*inamabilis*,) and most filthy, or loaded, (*gravissima*.) Shakspeare, that deepest observer of nature, just above quoted, called the torpid water of a pool “filthy.” The lords of your own pools, in spite of themselves, have recorded the constant “filth” of these pools. And, in short, you might just as well try to make a silk purse out of a sow’s ear, as to make them anything but marsh-water; and, therefore, filthy; and, therefore, expensive—if not deleterious—imitations of one of the most beautiful objects in nature, a bold lake.

But besides this, to exhibit the artificial as well as natural difficulty of those, who hold to the picturesque interpretation of the Bishop’s grant, I must here add further proof of that powerfully additional cause of change,

A REVOLUTION IN AGRICULTURE.

2. In Chapter IV, some allusion is made to a recent diminution in the supply of Sandford pool, in consequence of new channels being opened for carrying away both rain and spring water. But, since this chapter was printed, its statements have

been remarkably tested by very heavy falls of rain.

Thus, with only one exception, the heaviest fall of rain here, this year, was on the 4th and 5th of November; and there were showers also on the morning of the 6th. Yet on the afternoon of the 7th, so trifling was the supply of water in the pool, that the south side of the basin lay exposed and dry, to a distance of some yards!

The exception just mentioned alludes to the unusually heavy fall of rain, which continued, with scarcely any intermission, from soon after midnight on Thursday, the 12th, until midday on Saturday, the 14th of this month. The Barometer, it may be remembered, fell on the 13th so remarkably low as 28° ; and several districts throughout the country were very extensively flooded. Now, on the 13th, Sandford mill was idle; and on the following day, it was only worked for less than seven hours, as the miller reports. Yet by the evening of this day, the south side of the pool-basin was laid dry enough to walk on;—and it was walked on;—the water being irregularly from two to three, or more, yards from the bank!

The glaring facts, then, on this occasion,—and I defy the whole set of politicians to disprove them facts,—were that, allowing for the natural diminution of the pool, a more than abundant supply

of rain water fell above it ; but that, in consequence of modern interference, this water could not reach the pool in such proportion as a similar fall of rain would have reached it, a few years ago.

As other supplies of water, then, must become variously intercepted by new filters and channels for the improvement of land above Lichfield, is it not a farce and an absurdity to imagine, that the Lichfield pools will not immediately suffer as Sandford pool has already suffered, if you attempt to preserve them? And such being the case, is it either fair or prudent to attempt, for your own immediate gratification, to preserve “ornaments,” which must, from the very nature of them, entail debility, expense, and “filth?”

A REVOLUTION IN AGRICULTURE before alluded to is the Deanston Drain System. In the very first paper of the Journal of the English Agricultural Society, it stands recorded, that “The practical farmer, who this year,” 1839, “won the first medal of the Society, states Mr. Smith’s,” the Deanston, “process to be the greatest improvement effected in agriculture, since the introduction of turnip culture ; that is, for the last century. . . . Mr. Smith’s mode of dealing with clayey subsoil, which holds up in the soil the water that has fallen in rain, and thus exerts some unexplained evil influence on plants fitted for the food of man

or of cattle is" given in the Journal. "A REVOLUTION," the writer adds, "will be effected in the mode of culture ; and even where the subsoil is of stone, the stone may be so interspersed with clay, that thorough draining may be equally requisite."

Now such necessity for thorough draining,—an interspersion of thin layers of clay with portions of divided sandstone,—exists near abundance of injurious surface water, north-west of Lichfield, near Pipe-marsh stream. This stream, then, must be lessened by any system of draining land in its neighbourhood, which directs the rain water through the clay ; as may be understood from the Diagram on page 19 ; and consequently, *the supply of water for the Lichfield pools must be lessened by it also.*

Mr. Dudgeon's paper on the Agriculture of Scotland, bears corresponding testimony to that just quoted. Mr. Dudgeon observes that "No great extent of improvement could be effected in Scotland without this essential work" of drainage. And he also adds, that the Deanston Drain system " is now happily in a fair way of quickly working A REVOLUTION in many parts of Scotland, rendering land, which was scarcely worth 10s. an acre, equal to double and treble its former value."

THIS REVOLUTION is, moreover, encouraged by

all parties, by practical farmers, by men most eminent in various departments of science, by politicians of every creed;—"all parties having laid down their political weapons, at the threshold of a Temple of Peace,"⁽¹⁴⁾ for the advancement of one common cause. So that, when the silent but unerring REVOLUTION shall

"Thus far into the bowels of the land
Have marched on, without impediment,
And here receive
Lines of fair comfort and encouragement,"

how richer than duck-meat will become the dried-up ornaments! How more than Augean the labor of preserving them, *for ever!* And

How are the never-ending expenses of this never-ending labor to be provided for?

If "a subscription be opened for defraying the expenses of cleaning the Minster pool," and, now, of Stow pool into the bargain, when the vastly increased extent of labor required for such purpose is contrasted with the decreased and decreasing wealth of the town,—subscriptions for feasts notwithstanding; when, on the part of the descendants of former subscribers, an amazingly improved acquaintance with the geological and agricultural causes of the supply and diminution of a

pool is considered ; when it is remembered who subscribed in 1801, 2, 3, 12, 13, and 16;—and I am now furnished with proof, that in this last named year, private individuals, as well as the corporation, subscribed for having the “filth” removed from the head of the Minster pool. A fact which, taken in conjunction with the clearing of the place, for the sake of foundation, shews the extent of the labor, at this date. *See page 30. Corporate Order, dated April . . 1816, and Treasurer’s account, 1816.*

When it stands a most glaring fact that, very lately, even while public dread of Asiatic Cholera had scarcely ceased, only twenty-three persons subscribed towards the removal of certain then fever-infected, obstructing, and unsightly tenements, (five of these parties, moreover, living directly opposite the Row of nuisances, and three of them living altogether out of the town,) it cannot be supposed, that “the prosperity of the City of Lichfield” will be much advanced by continuing to send its funds *afloat*.

But as lovers of the picturesque think otherwise, asserting that they can now maintain the pools in pristine beauty ; because the sewers are, in part, diverted from them, it becomes necessary to consider the past influence of sewers on these ornamental expanses.

OF THE INFLUENCE OF SEWERS, ON RECIPIENT
EXPANSES OF WATER.

3. Before meeting the objection just stated, it may be noted, as an equally good joke, that the tail of Stow pool being very shallow one day, this autumn, the miller was asked the cause.

His answer was, that his mill had drawn off the water, until it had no more to draw off. And he added, that this was now of such frequent occurrence, as to make him feel it severely; he, amongst other reasons for this, asserting that "*the supply of water for Stow pool had become very much lessened, since the sewers were turned from it; because these channels now carry away much of the rain which would otherwise fall into the mill stream.*"

Reason about this as you will, or laugh at it, if you will, it is one amongst many a proof, that the supply for the mill is diminished; and that a better supply must be had to insure a continuance of exorbitant rents.

And as this question bears negatively upon that of the influence of the sewers, it is not going out of the way, yet further to remark that, little more than sixty years ago, although the most defended of the Lichfield mill-ponds was then confined to its present superficial extent, the body of water in

the basin was so much more than was required for a corn-mill only, that the corporation,—anxious to establish a trade here,—made an order, that professional “*opinion be taken to ascertain whether there is sufficient water in Stow-pool for a corn-mill, and a fulling-mill, both.*” An order which, contrasted with the present state of things, surely marks extensive change, be the cause what it may. *See Order-book, February 29, 1776, and Corporate Maps of this date.*

As to the sewers, if they be so injurious as they are asserted to have been, remember, that the north sewers are not,—and cannot be, without vast and most preposterous expense,—diverted from your ornaments ; so that, in talking about them, you, as usual, only make your own case worse ; just as you make it twelve-hundred times worse in asserting,—and I have heard it asserted, on apparent authority,—that the bed of the Minster pool was never scoured out, before the present century !

Another of the sewer-school shots at the Bugaboos, which frighten away poor Beauty from the marsh, is levelled against—sheep-skins !

You must be aware that an obstruction to the flow of water causes a deposit from it. This nobody can doubt : nor can he doubt, that where the water of an expanse is farthest from the cur-

rent, there it throws down a deposit; because there it is weakest.

The south-east corner of your Minster pool, then, is obstructed by a wall, and it is the point altogether most distant from the current. But it so happens, that because a few sheep-skins are, sometimes, washed here, it has been seriously asserted, and gravely listened to, that all the "filth" in this corner has come from them!

However great might have been Dr. Johnson's ingratitude, in calling his "*magna parens*" "*a city of philosophers,*" so shortly after the publication of *Gulliver's Travels*, he certainly had reason for the joke. But as Lichfield, in the present day, has little cause to trifle over jokes, any longer, she would do well to reverse her consideration of the sewers and the pools by asking:—WHAT INFLUENCE MAY A FREE CURRENT OF WATER EXERT, NOT ONLY ON THE SEWERS, BUT EVEN ON THE ATMOSPHERE OF THE VALLEY? For whereas it is undeniable, that torpid puddles emit exhalations, which contaminate the atmosphere, it is not unfairly believed, on the contrary, that a rapid stream, by agitating the air, tends to carry off the noxious exhalations of the earth, as well as the noxious effluvia of sewers.

Now, though the natural stream in Lichfield is small, it may be, at once, directed to pass with

considerable rapidity; since the fall from the higher pool to Stow brook is eighteen, or nineteen, feet, in a distance of less than half a mile. So that, to say the very least of it, the water may, in some small degree, be made a benefit to the valley, instead of a blood-tainting and depressing nuisance.

To shew how far the sewers have been concerned in filling up the pools, the bare enunciation of three facts will answer :—

1st. The sewers, sinks, channels and ditches of Lichfield, seven hundred years ago, emptied themselves into the Minster and Stow pools, and not into the Bishop's pool. But the Bishop's pool was the first filled up.

2ndly. That part of the Minster pool, which became first filled up, was not where the sewers opened into it, north or south; but where the carrying power of the water first most decidedly failed; that is, at the greatest distance, at the head of the pool, from the centre of the original causeway. And

3rdly. The latest bank of deposit in the Minster pool has increased more since certain sewers were diverted from it, in 1833, than it did for an equal lapse of time before this period; because of its frequent exposure above the surface of the water, and of consequently increased vegetable growth on it.

And if these facts are not enough, they who seek more are welcome to pervert the Bishop's grant, and to restore, if they can, the Bishop's pool, *for ever*; my only regret, on this occasion, being that of having expended so many words over "passages for the foul and useless water of a town to run through," adopting thus a Lichfield definition of sewers as the most fitting definition of THE LICHFIELD POOLS.

NOTES.

1. *Mr. Elkington's improvements in draining land* were so highly valued, that the Board of Agriculture procured £1000 to be given to him, on this account.
2. *The Farmer's Blunder, a Tale.*
3. *Of eluvial peat.* The Latin word *ELUVIES* being defined "a water-pool; a piece of ground drowned with water; filth cast up of the water," &c. *eluvial* may be taken to mean deposit from torpid water, in opposition to *alluvial*, which results from a land-flood and bold stream (*ALLUVIES.*) Dr. Humble) in his modern and very valuable Dictionary, derives the word *peat* from the German *PFUTZE*, a pool. But peat may originate where there is no pool, as in a bog; and bog peat, moreover, and marsh peat are altogether different substances. May not *pfu!* an exclamation against the "filth" of a pool, be derived from *pfutze*, with more reason? See also the definition of *SPHAGNUM PALUSTRE*, in Humble's Dictionary; and an account of *HUMUS*, and other constituents of the most generative soil, in Playfair's translation of Liebig's Organic Chemistry in its application to Agriculture.
4. This and the two following quotations, founded on observation of natural facts, are from Shakspere. See *Inquiry*, p. 33, on *partial fogs in Lichfield*.
5. *An example of loss of rent from want of drainage*, not dissimilar to that in Lichfield, is given by Sir James Graham. On a certain piece of land, he trenched, and limed. &c.

at great expense, some years ago,—just as certain parties here have done lately;—but it “has been very unproductive, ever since; and all the expenditure has been thrown away,” for want of drainage!

6. Boswell records, that he observed people in Lichfield, “dressing sheep-skins,” in the Minster pool, no doubt; “but, upon the whole, the busy hand of industry seemed to be quite slackened. ‘Surely, sir, said I, ‘you are an idle set of people.’ ‘Sir,’ said Johnson, ‘we are A CITY OF PHILOSOPHERS!’”
7. A *Play-ground* was, in former days, considered an almost unavoidable appendage to a school, “to be retained for the use of the scholars only, and to be applied to no other purpose whatever;” as the words are in account of a freed Grammar School in “a City of Philosophers.”
8. These properties originally formed part of the Bishop’s marsh, or *Mariscum Domini Episcopi*, as it is named in an ancient deed, noticed in A Short Account of Lichfield. The word marsh is only an abbreviation of marish. May not *marish* be derived from *mariscum*, a rush, or place of rushes; as *rush* is, according to Ainsworth, from *ruscum*?
9. “*Stagna virentia musco.*” Pools green with duck-meat.
VIRG.
10. *Incidental expenses*, under management of the new corporation, are rather amusingly denied by opposite parties,—of course, political parties,—one to prove, the other to disprove, change for the better! But how stands the fact? The fact is, that, in this account, at all events, the politicians, like the school-master, are all abroad; since,

during the years 1836, 37, 38, and 39, the payments out of the corporate income have amounted to upwards of £120, for materials purchased from, or, as of old, “work done,” by numerous parties;—Messrs. Parkes, Maddox, Mather, Wright, Gorton Sen., Gorton Jun., Hatfield, Acton, Booth, Bonell, Bird, Smith, and Gilbert!

11. *Endemic fever in Lichfield* is noticed in the Inquiry. The name FEVER in England yet popularly conveys an idea of some dreadful consequent mortality. And not many years ago, this idea would have been as perfectly correct here, as it is now in that fever-infested—because neglected, although beautiful—country, Ireland. In England, however, in the present day, this idea of fever is altogether incorrect; as explained in THE LANCET of October 3rd, 1840. The occurrence of fever here, nevertheless, is a national evil; because it either leads to a demoralizing appeal to private charity, so called, or else tends to increase the amount of Poor-rate; the improvident and charity-hunting poor being as notoriously the general subjects of fever, as they are either dissolute idlers, or hypocritical impostors.

An endemic taint of constitution in Lichfield being denied by some parties, I take this opportunity of explaining how such taint may be the result of an undrained and unventilated locality.

For instance, first, as relates to an inferior order of animals,—let “philosophers” think what they will of the comparison,—numerous pig-sties are to be found in the town, which are either literally knee-deep in accumulated dirt, or else placed in confined situations near stinking hog-wash! The owners contending, from asserted experience,—like the philosophers,—that their animals thrive in dampness! Now it is a matter of demonstration, that glandular disease, especially disease of that complicated

gland, the liver, will take place in a pig, under aggravated circumstances of this kind ; call the disease what you may ; since, like everything else in physic, this is a disputed point. And it so happens, that the name of *scrofula*, which is a glandular disease, is derived from the Latin word *scrofa*, a sow.

It is also undeniable, that all animal life obeys the same, however modified, laws ; since all animals are made by one Unchanging Mind. Or to adopt the words of eminent authority, we have seen different modifications of animal and vegetable life prevailing at different epochs of the earth's physical history, yet all presenting the same principles of structure, the same unity of purpose ; all bearing the impress of the same Almighty hand. *Animate and inanimate nature, linked together by indissoluble ties of mutual adaptation, have been governed by the same mechanical, chemical and vital laws, from the earliest geological periods to the present time.*" And such being the case, who dare assert that the human constitution may not, like that of an inferior animal, be tainted by neglect of medical police ; by want of drainage, want of cleanliness, and want of ventilation ?

A paid and efficient body of medical men, authorized to examine into these particulars, and to carry into full national effect sound principles of medical police, would do more to remove nuisances, raise the standard of national vigor, and lessen the poor-rates, than all the Nuisance Juries, Guardians of the Poor, and Poor-law Commissioners that ever existed.

12. Ask David Wood.

13. In justice to a friend employed to build THE BRIDGE, as it is called, I must note, that not only has he built several substantial bridges elsewhere, but his plan in Lichfield

was in strict accordance with the demand, just as the plan of any rational architect laid for it would have been, under the same circumstances. That is, on the osier-bed, and, of course, unfrequented side of the swamp, he left only one entrance for a small body of water ; but on the other, or picturesque side of it, he made three arches—two of them, of course, blind—for the gratification of public taste. The original causeway, it is true, presented three open arches ; but then, at this boundary of it, the original Bishop's pool, which regulated the form of the causeway, was fully four times as wide as the head of the present Minster pool.

14. Sir Robert Peel's speech, at the Cambridge Agricultural Meeting, quoted from memory. Certain other parts of this essay having been also quoted from memory, such mistakes may appear in it as an omission of notice of the mill croft in page 10. But such mistakes can, in nowise, prejudice the foregoing view of the main question :—

Can you preserve your pools ?



THE END.

JUST PUBLISHED,

AN INQUIRY INTO THE HISTORY AND INFLUENCE OF THE LICHFIELD WATERS, INTENDED TO SHIEW THE NECESSITY OF AN IMMEDIATE AND FINAL DRAINAGE OF THE POOLS.

“OF the soundness of the views, which you have promulgated in your little treatise, there cannot be a doubt. The deleterious effects of large pools of water, in those seasons of the year, when rapid decomposition of animal and vegetable substances is taking place, are too notorious to require comment. I have known several instances, where typhus was produced by the malaria engendered by lakes or ponds of fresh water, although care was taken that the water should not be stagnant. In the county where I formerly resided, Sussex, there was a range of chalk hills, based by a band of clay, and this last flanked by beds of sand: the cottagers living on the clay district, on which were numerous ponds, were frequent victims . . . to remittent and typhus fevers; while the occupiers of tenements on the porous and dry strata of chalk and sand were exempt from those maladies. As I was the medical attendant of several extensive parishes, as well as Surgeon to the troops of Artillery stationed in barracks, I can establish the facts above stated.”

DR. MANTELL'S LETTER TO THE AUTHOR.

“This is objected to by certain lovers of the picturesque; and by another very opposite class of persons, who button up their breeches pockets very closely, that the ‘money may fructify there,’ when a call is made upon them for any public purpose. Dr. ————— has arguments for all these classes, and they are arguments which deserve careful consideration.

* * * * *

We have given rather a detailed notice of this little work, because we are glad to see a subject of public health zealously pressed on the attention of the inhabitants of Lichfield; and hope to see other specimens of medical topography from practitioners in every town of the kingdom. Medical men will conduct these inquiries much more satisfactorily than the Poor-Law Commissioners.”

LANCET, *August 29th*, 1840.





